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10/559,810	05/12/2006	Akihiko Ueda	Q91902	7403
23373 7590 02/19/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER HU, HENRY S	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			02/19/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/559,810

Applicant(s)

UEDA ET AL.

Examiner

HENRY S. HU

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment of November 23, 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 6-12 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-3 and 6-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. USPTO has received **Amendment** filed on November 23, 2009, which is in response to non-final office action (for RCE) filed on May 26, 2009. **Claim 1 is amended; Claim 4 is previously cancelled, Claims 2 and 5 are cancelled, while new Claims 9-12 (Claim 12 is independent) are added.** To be more specific, parent **Claim 1** is now once-amended in three ways including: (A) to limit the "X" factor in formula (I): $R_f-Y-O-C(=O)-CX=CH_2$ to be a fluorine atom or a chlorine atom only, (B) to incorporate the limitation of Claim 2 so that the functional group is a **silane** group, and (C) to incorporate the limitation of Claim 5 so that **alkyl(metha)acrylate** is used as the additional co-monomer so that at least three monomers are used in making the copolymer of parent Claim 1. **The scope of parent Claim 1 is certainly changed.**

Claims 1, 3 and 6-12 with two independent claims (**Claim 1 and Claim 12**) are now pending, while non-elected Group II (Claim 6) and Group III (Claims 7 and 8) are still both withdrawn from consideration. An action follows.

Response to Argument

2. Applicant's arguments filed on November 23, 2009 have been fully considered but they are not persuasive. The focal arguments related to the patentability will be addressed as follows: Parent Claim 1 is now once-amended in three ways including: (A) to limit the "X"

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factor in formula (I): $R-Y-O-C(=O)-CX=CH_2$ to be a fluorine atom or a chlorine atom only, (B) to incorporate the limitation of Claim 2 so that the functional group is a **silane** group, and (C) to incorporate the limitation of Claim 5 so that **alkyl(meth)acrylate** is used as the additional comonomer so that at least three monomers are used in making the copolymer of parent Claim 1.

The scope of parent Claim 1 is certainly changed.

After further consideration particularly at least three monomers A, B and C are applied in making the copolymer of parent Claim 1, **102(b) rejection by Inukai is withdrawn, while 102(b) rejection by Ohmori is still sustained but with modified rationale. Final rejection is thereby applied** with current situation. Further amendment on parent Claim 1 is suggested.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The limitation of “once-amended” parent **Claim 1** in present invention relates to **a fluorine-containing polymer for a masonry treatment, comprising three monomers including:**

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(A) a fluorine-containing monomer having a formula (I) $R_f-Y-O-C(=O)-CX=CH_2$ with all the three factors X, Y and R_f as specified, particularly X is now amended to be a fluorine atom or a chlorine atom.

(B) a monomer containing a **functional** group reactive with active hydrogen, wherein the functional group is a silane group, and

(C) a fluorine-free alkyl group-containing monomer which is alkyl (meth)acrylate.

Newly added parent Claim 12 relates to parent Claim 1 but uses a closed language “consisting of” for the monomeric composition of the copolymer.

See other limitation of dependent **Claims 3 and 9-11**.

5. **Claims 1, 3 and 9-12 are rejected** under 35 U.S.C. 102(b) as being anticipated by Ohmori et al. (EP 247,489 A2 or its equivalent US 5,021,501) for the reasons set forth in paragraphs 5-8 of office action dated 5-26-2009 as well as the discussion below.

Parent Claim 1 is now “once-amended” to become a fluorine-containing polymer (to be useful for a masonry treatment) comprising three monomers including: (A) a fluorine-containing monomer having a formula (I) $R_f-Y-O-C(=O)-CX=CH_2$, wherein X is now amended to be a fluorine atom or a chlorine atom only, (B) a monomer containing a **functional** group reactive with active hydrogen, wherein the functional group is now a silane group, and (C) a fluorine-free alkyl group-containing monomer which is alkyl (meth)acrylate. Based on the fact that at least three monomers are now applied in making the copolymer, the scope of parent Claim 1 is certainly changed. Newly added parent Claim 12 relates to

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parent Claim 1 but uses a closed language “**consisting of**” for the monomeric composition of the copolymer.

6. Previous 102(b) rejection by **Ohmori** is sustained with modified rationale since Ohmori has indeed prepared some copolymers including terpolymers so as to treat the surface of at least some porous substrates including masonry and the like. For instance, said terpolymers comprise the claimed three monomers (A), (B) and (C). Open language “**comprising**” is still applied to the monomeric composition of the fluoropolymer in parent **Claim 1**, while closed language “**consisting of**” is applied for the monomeric composition of the copolymer in newly added parent **Claim 12**.

7. To be specific, see **Ohmori**’s formula (1) $R_f-Y-O-C(=O)-CX=CH_2$ (wherein **X is a fluorine atom or $-CFX^1X^2$** ; **R_f is a fluorinated alkyl group C_{3-21}** ; and **Y is an alkylene group, a $-CH_2CH_2-N(R^1)SO_2-$ group or a $-CH_2CH(OY^1)-CH_2-$ group**) as fluorinated monomer reads on the claimed monomers (A) at abstract; page 2, line 1-14;

8. See the functional or crosslinkable monomer (which is reactive with active hydrogen as known in the art) reading on monomer (B) at page 5, line 8-18. Particularly see trialkoxy-silyl-containing monomer such as $CH_2=C(CH_3)-COO-CH_2CH_2-Si(OCH_3)_3$ (page 5, line 17-18) has been added in the course of making copolymers by Ohmori in this regard.

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9. See the use of alkyl (meth)acrylate (which is reading on the claimed monomer C) as **additional co-monomer** in the course of making copolymers by Ohmori. See page 5, line 1-22; particularly line 19-22 for $\text{CH}_2=\text{C}(\text{CH}_3)\text{-COO-CH}_3$ and $\text{CH}_2=\text{C}(\text{CH}_3)\text{-COO-C}_8\text{H}_{17}$. Therefore, at least some of Ohmori's cases anticipate the current limitation of **two** parent claims including **Claim 1 and Claim 12**.

10. Regarding newly added dependent **Claims 9-11**, they are related to R_f group being C_{1-9} in monomer A, alkyl group being C_{1-18} in monomer C and the weight amount of three monomers, respectively. Claims 9-11 are thereby rejected with the rationale discussed above.

11. In summary, after further consideration particularly at least three monomers A, B and C are now applied in making the copolymer of parent Claim 1, **102(b) rejection by Inukai is withdrawn, while 102(b) rejection by Ohmori is still sustained (at least some of Ohmori's cases) but with modified rationale. Final rejection is thereby applied** with current situation. Further amendment on parent Claim 1 is suggested.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Dr. Henry S. Hu** whose telephone number is **(571) 272-1103**. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Vasu Jagannathan, can be reached on (571) 272-1119. The fax number for the organization where this application or proceeding is assigned is **(571) 273-8300** for all regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about

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the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Peter D. Mulcahy/
Primary Examiner, Art Unit 1796

/Henry S. Hu/
Examiner, Art Unit 1796

February 12, 2010